Attorney Docket No. 033218-018 Patent Application

## **ABSTRACT**

The present invention relates to a process for the synthesis of oxandrolone from mestanolone. The process comprises the steps of: (a) oxidizing mestanolone to form  $17\beta$ -hydroxy- $17\alpha$ -methyl- $5\alpha$ -androst-1-en-3-one; (b) hydroxylating the  $17\beta$ -hydroxy- $17\alpha$ -methyl- $5\alpha$ -androst-1-en-3-one to form  $1\alpha$ ,  $2\alpha$ ,  $17\beta$ -trihydroxy- $17\alpha$ -methylandrostan-3-one; (c) cleaving the  $1\alpha$ ,  $2\alpha$ ,  $17\beta$ -trihydroxy- $17\alpha$ -methylandrostan-3-one to form  $17\beta$ -hydroxy- $17\alpha$ -methyl-1-oxo-1,2,-seco-A-nor- $5\alpha$ -androstan-2-oic acid; and (d) reducing the  $17\beta$ -hydroxy- $17\alpha$ -methyl-1-oxo-1,2,-seco-A-nor- $5\alpha$ -androstan-2-oic acid to form oxandrolone.